Before the
Federal Communications Commission
Washington, D.C.
February 3, 2003

REPLY COMMENTS OF HARRIS CORPORATION

FCC Proceeding 02-146

Allocations and Service Rules for the 71-76, 81-86 and 92-95 GHz bands

Introduction

Harris Corporation ("Harris") welcomes the healthy and productive comments filed to date in this important regulatory issue and submits these reply comments to provide the Commission will additional information and perspective.

Harris, one of the major U.S. equipment and services providers to the Fixed Wireless industry, is primarily interested in maximum utilization of these frequency bands and commends the Commission's commitment to expedite full utilization of them. Harris strongly supports a regulatory framework for the 71-76, 81-86 and 92-95 GHz bands that will permit unrestricted access to these bands in an expedited manner, as discussed in detail in our previously filed comments.

After a review of the submitted comments, Harris has concluded that the 70-90 GHz bands clearly provide substantial opportunities for a diverse set of communications

services, including in particular the provision of very high bit rate (> OC-12) terrestrial point-to-point links. Numerous economic and deployment models are being considered and have become a basis for the technical contributions made before the Commission. While Harris supports many of the excellent recommendations, Harris is very much concerned that the economic and deployment models being used as a basis for these recommendations are highly speculative and will place excessive burdens prematurely upon equipment specifications and spectral utilization parameters. Harris believes that at this early stage, the public would be best served by the development of rules for these bands that initially provide significant flexibility in terms of equipment functionality, performance and cost. By pursuing this course, the Commission will be enabling the market to develop. Following this process, it would be appropriate to revisit the rules at a later date to establish more specific operating parameters as needed to ensure long-term compatibility of future deployments. This approach ensures that the Commission will have a body of fact-based, real-world experience upon which to proceed.

Harris reiterates its stated position that link-by-link "Part-101" type licensing is highly preferred over auction based area licensing. In the context of this comment, Harris views link-based licensing as a highly efficient method of giving wide access to as diverse a set of potential users as possible. Harris believes this approach will accelerate emergence of the optimal applications, product specification requirements and the future needs for spectral utilization and co-existence regulations.

ISSUES

71-76 GHz / 81-86 GHz Band Pairing

Harris disagrees with Loea's proposal for a required pairing of the 71-76 GHz band with the 81-86 GHz band and recommends instead that the bands be licensed optionally separately or together. This more flexible approach will enable the development and deployment of a wider range of technologies including the proposed "dual band" FDD systems along with the more currently available technologies applicable to both "single band" FDD and TDD systems.

92 – 95 GHz

Harris reiterates our preference for the Band Plan III, as proposed by Boeing. The 2,000 MHz band segment would support very high bit rate TDD systems as well as provide for adequate separation for single band FDD operations. Harris sees availability of a large, contiguous allocation of spectrum to be a vital element of the process of encouraging innovation and the development of advanced transmission technologies.

Channelization

While appropriate for the current regulation, Harris is concerned that the non-channelized nature of the current recommendations will ultimately have to be revisited regardless of the single or dual band structure of the allocation. Harris' analysis of the potential interference mechanisms in these systems and our extensive experience in the deployment of point-to-point (PTP) networks lead us to conclude that high-density

deployments of PTP radios, such as in a “hub and spoke” topology are particularly vulnerable to frequency re-use interference in a system-wide, co-channel scenarios. Harris believes that the coordinated licensing procedures discussed in our previously filed comments will provide system planners with the necessary tools to minimize interference.

It has been argued by Cisco, among others, that flexibility as described above may cause some restrictions in the density of links at certain buildings used as network aggregation points in cases where the links are not under the control of a site manager that insures compatibility of the links in a high-density deployment. As of yet, Harris is not convinced that this will be a highly prevalent scenario, and as such, should not be the basis for excluding single-band technologies.

Conclusion

As stated in our previously filed comments, Harris believes the Commission through this proceeding provides a viable regulatory framework well suited to serve the needs of the Public, and Commercial and Federal Governments, by achieving achieve optimum utilization of the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands. Our position is that of a major equipment supplier and we endorse any means that will make full application of these bands available to all who wish to use them with a minimum of regulatory and technical restrictions. We urge the Commission to proceed with prompt adoption of the proposed rules and to consider Harris Corporation’s comments in final action on these matters.